Claim Listing

1-73. (Canceled)

74. (Currently Amended) A data processing system comprising:

one or more computer processors programmed to receive health information from a patient using software operable to pose a logic-driven, branching series of questions to identify, discriminate current from past, and prioritize said patient's major symptoms ~~complaints~~,

(a) wherein said major symptoms ~~complaints~~ are ranked by priority ~~relevance~~ to said patient; and wherein exploratory questions are used to survey selected topics;

(b) wherein said exploratory questions ask about groups of related items;

(c) wherein said exploratory questions determine a time frame of relevance to said patient and the priority of ~~said patient's judgment of relevance of~~ a symptom or provisional problem,

(d) wherein said priority ~~relevance~~ is characterized by one or more ~~of:~~ patient's ~~priority~~ factors, selected from the group of: patient's priority for discussion with a clinician, severity of said symptom, ~~and magnitude of problems~~impairment of functional abilities, ~~or~~ impact on quality of life resulting from said symptom, or system factors reflecting a potential medical importance of said symptom;

(e) wherein said software is further operable to construct subsequent, more detailed questions from a database of potential questions, based upon said patient's responses to said exploratory questions; and

(f) wherein said software is operable on the one or more computer processors or on a server distributed to the one or more computers over an Internet connection, an intranet connection, or local area network.

~~wherein said software is further operable to match said patient to a pre-selected interview configuration profile from a family of such profiles that determine inquiry scope and inquiry depth of a given patient interview, said inquiry scope specifying a set of interview topics to be covered, and said inquiry depth specifying a level of detail for a characterization of elicited symptoms; and~~

~~wherein said software is further operable to dynamically integrate input from multiple sources to determine a depth of detailed questioning to pursue, said sources providing data regarding relevance to patient, desired depth of characterization detail for a topic as determined by a configuration profile, or medical importance of a given topic as determined by experts~~.

75. (Currently Amended) The system of claim 74, wherein said system is operable to integrate an assessment of characterization detail for related symptoms in a group of potentially associated symptoms;

(a) wherein potential associations between symptoms are identified at a time of authoring of interview content based upon clinical knowledge;

(b) wherein severities of candidate symptoms in associations are obtained during an interview;

(c) wherein a most severe symptom in an association (hereinafter "index symptom") is identified;

(d) wherein characterization detail is obtained about one or more index symptoms, as appropriate for clinical importance or relevance to said patient;

(e) wherein an interview question is asked about whether any of said patient's other symptoms in said association share features in common with said index symptom;

(f) wherein, for areas where features are shared, redundant characterization detail is skipped for associated symptoms or subsequent interview questions characterizing associated symptoms are combined; and

(g) wherein a risk of frustrating said patient is reduced by detecting relations between symptoms, when they exist, or allowing symptoms to stand alone, when no association is identified.

76. (Currently Amended) The system of claim 74 further operable to identify and measure ~~characterize~~ severity and functional impact of a full range of multiple potentially overlapping physical and psychosocial ~~concurrent~~ symptoms in any combination;

(a) wherein an assessment uses screening questions relating to physical and psychosocial symptoms;

(b) wherein said psychosocial symptoms comprise at least one of the group of: substance use, depression, anxiety, panic, stress, somatoform disorder, health attitude, behavior, illness concern, and anxiety;

(c) wherein said overlapping physical and psychosocial symptoms comprise symptoms that are concurrent or that share location or other features potentially confusing to patients or physicians;

(d) wherein related symptoms are grouped in order to facilitate assessment of symptom severity, frequency, ~~and~~ impact on functional abilities, ~~status~~ and quality of life; and

~~(b) wherein identifying and characterizing symptoms and measuring symptom severity are used to support assessment of a plurality of concurrent symptom groups; and~~

(ee) wherein separate scores are calculated for each of said symptom groups in order to determine whether said patient has one or more than one symptom complex and to separately assess severity and functional impact of each symptom group over time in response to time or treatment for purposes of patient care, research, or quality assurance.

77. (Currently Amended) The system of claim 74 further operable to assess impairment in quality of life and functional abilities ~~status~~ in relation to a plurality of symptoms and medical conditions;

(a) wherein quality of life questions are created to probe limitations in a plurality of general ~~generic~~ domains that may be related to one or more ~~than one~~ underlying medical condition;

(b) wherein said quality of life questions are asked without reference to whether a limitation is due to a health or emotional condition, symptoms, injury, or other problem; and

(c) wherein impact of each group of related symptoms or each health condition is determined by asking about resulting severity, frequency, or perceived impact on quality of life.

78. (Currently Amended) The system of claim 77,

(a) wherein said software is operable to display areas of ~~generic~~ general quality of life and functional abilities ~~status~~ that said patient has reported are impaired, and to offer said patient choices about potential causes of such impairment; and

(b) wherein said software is operable to sequentially display each of one or more general ~~generic~~ quality of life issues reported by said patient to be limited by symptoms or health conditions, list various symptoms and health conditions that said patient has reported are most

severe, and offer response options to indicate a degree to which each symptom or health condition causes limitation of indicated general ~~generic~~ quality of life domains.

79. (Previously presented) The system of claim 74 further operable to directly assess dimensions of the quality of care and provide feedback to clinicians or administrators about areas where action could be taken to correct apparent problems with said quality;

(a) wherein said system is operable to display questions regarding one or more of: patient understanding of a health condition, patient health attitudes and behaviors, patient willingness to change health behaviors, patient perception of communication with a clinician and whether patients were heard and respected, patient observation about health care received, patient understanding of what to expect and what to watch out for regarding health conditions or treatment, patient understanding of treatment received, patient understanding of medications to be used, or patient compliance with medication and with treatment; and

(b) wherein patient-reported quality of care data are integrated into a clinical report and flagged to identify problem areas; such quality improvement data are presented to clinicians with suggestions regarding correcting apparent problems with the quality of care; or said software provides brief and focused education to a patient who needs or desires additional information about said patient's health condition.

80. (Currently amended) The system of claim 74, further operable to calculate a severity score based on patient data regarding severity of symptoms;

(a) wherein different levels of severity are assigned different values; ~~and~~

(b) wherein symptoms from a similar region or system of a patient's body are grouped together, offering patients the option of confirming this association, after which a score assigned to each group is computed, and scores are reported to facilitate interpretation by a clinician with regard to relative importance of a symptom group and possible implications of observed symptom patterns, and, given scores of a particular group across successive interviews of said patient, to reflect changes in severity over time; and

(c) wherein scores are reported to facilitate interpretation by a clinician with regard to relative importance of a symptom group and possible implications of observed symptom patters, and, given scores of a particular group across successive interviews of said patient, to reflect changes in severity over time.

81. (Canceled)

82. (Currently Amended) The system of claim 74 ~~80~~, further operable to:

(a) inform patients about routine procedures, surgeries or research for which informed consent is required, and using text, images, or video or audio presentations to educate the patient about said routine procedures, surgeries or research; and

(b) obtain informed consent from a patient who agrees to undergo at least one of said routine procedures, surgeries, or research~~participate in research using interview content approved by an appropriate Institutional Review Board~~.

83. (Canceled).

84. (New) The system of claim 76 further operable to characterize key features and detect symptom patterns of potential diagnostic, therapeutic, or prognostic importance relating to characterization details and to enhanced or diminished visceral or somatic sensation and symptom reporting by the patient;

(a) wherein detecting symptoms in exploratory questions optionally triggers a detailed, systematic characterization of features, including at least one of the group of: location, description, timing, precipitating factors, and relieving factors;

(b) wherein multiple symptoms and the characterization details are gathered and interpreted, wherein the characterization details include at least one of the group of: expanded referral, overlapping patterns of precipitation and relief, use of multiple descriptive terms, and evidence of somatic (fibromuscular body wall) involvement;

(c) wherein a history of prior symptoms, or an absence thereof, provides evidence of the patient's pattern of symptomatic response; and

(d) wherein said symptom patterns or the characterization details provide information implicating altered visceral or somatic sensitization, and a pattern and psychobehavioral dimensions of symptom reporting by the patient.

85. (New) The system of claim 76 further operable to discover, discriminate, and measure multiple symptoms and uncover symptoms obscured by overlap with other existing or new symptoms;

(a) wherein targeted instructions are provided to educate the patient about a possibility of overlapping symptoms and how to discriminate the overlapping symptoms by focusing on characteristic features;

(b) wherein multiple symptoms may be discriminated by the patient as the same or different, based upon questions about the characteristic features,

(c) wherein obscured or overlapping symptoms can be suspected based upon a response indicating at least one of the group of: two symptoms overlapping in location, time, characteristic features such as a pattern of precipitation or relief, a symptom being described as both a pain and a discomfort, having expanded referral (being felt over a wide area), a character of the symptom being described by multiple terms, or a symptom pattern changing over time;

(d) wherein patients are offered an option of a response indicating that potentially overlapping symptoms are the same, related but not the same, different, or uncertain; and

(e) wherein optional branching series of questions are provided to gather further details for: symptoms that are different, or related, whereas subsequent questions are skipped for symptoms that are the same or where the patient is uncertain about a relationship of related symptoms.

86. (New) The system of claim 74 further comprising a System Response Analyzer adapted to use logic to monitor the patient's responses for an inconsistent response, the inconsistent response triggering a detailed assessment of patient consistency and veracity.

87. (New) The system of claim 74 further operable to generate an agenda for a clinic session, the agenda comprising a list of symptoms ranked by patient or system priority; wherein the agenda provides information for estimating a time required for a practitioner to see the patient and a skill level of the practitioner required to see the patient.

88. (New) The system of claim 74 further operable to support problem management by physicians, wherein symptoms and active medical conditions (such as diabetes, chronic lung disease), are presented as a problem;

(a) wherein a physician module is provided to filter, sort, and review patient-entered, physician-entered, or system-imported data, and to add physician-entered data;

(b) wherein the problem name is editable by the physician;

(c) wherein the problem can be created, updated, merged or divided by the physician;

(d) wherein all data is linked to a provisional problem, automatically by the physician module, or by the physician;

(e) wherein data entered by the patient or the physician, or imported by the system can be linked at entry or by system criteria, to at least one type of data selected from the group of data for: initial and return visit, symptom, medical condition, medical history, physical finding, test result, treatment type, response to treatment, side effects from treatment, plan for diagnosis, treatment plan, or problem summary; and

(f) wherein data can be filtered, sorted, and presented by criteria, the criteria providing a problem, data, physician author, activity status(active or inactive problem), or data type.

89. (New) The system of claim 74 further operable to support a return visit by the patient;

(a) wherein an agenda for the return visit may be set by: a return visit agenda set by a physician at a prior visit, completion of remaining interview modules from the prior visit, research protocol, or administrative protocol, wherein the administrative protocol gathers quality assurance data;

(b) wherein at the return visit, the patient is queried about any reasons they have for the return visit;

(c) wherein the patient's reason for the return visit can be compared with a physician's reason for the patient's return visit;

(d) wherein the patient is provided an option to review and update their prior symptoms and responses;

(e) wherein other symptoms are optionally surveyed to ascertain new developments; and

(f) wherein use of prescribed treatments by the patient can be sought as a measure of compliance.